

Safety Data Sheet
acc. to OSHA 29 CFR 1910.1200 HCS

Issue date: 05/26/2015

Revision Date: 05/26/2015

1 Identification

- **Product identifier**

- **Trade name: Terraclean Concentrated Fuel Treatment**

- **Part number:** 201270

- **Application of the substance / the mixture**

- Fuel injector cleaner for gasoline and diesel engines

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

- Terraclean, division of, CPS Products Canada Ltd.

- 1324 Blundell Road

- Mississauga, ON, L4Y 1M5

- Canada

- Phone: (905) 615-8620

- **Emergency telephone number:**

- CHEMTREC International +1 (703) 527-3887 (outside the US), 1-800-424-9300 (in the US) 24 hr

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Liq. 4 H227 Combustible liquid.

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

- The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

- 2-butoxyethanol

- 2-ethylhexan-1-ol

- **Hazard statements**

- Combustible liquid.

- Harmful if swallowed, in contact with skin or if inhaled.

- Causes skin irritation.

- Causes serious eye irritation.

- **Precautionary statements**

- Keep away from flames and hot surfaces. – No smoking.

- Wash thoroughly after handling.

- Avoid breathing dust/fume/gas/mist/vapors/spray

- Wear protective gloves/protective clothing/eye protection/face protection.

- Do not eat, drink or smoke when using this product.

- Wash contaminated clothing before reuse.

- Call a poison center/doctor if you feel unwell.

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Store in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:** For Professional Use Only
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 2
Reactivity = 0

- **HMSI-ratings (scale 0 - 4)**



HEALTH 2 Health = 2
FIRE 2 Fire = 2
REACTIVITY 0 Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following hazardous components.

· **Chemical components:**

111-76-2	2-butoxyethanol	50-100%
112-80-1	oleic acid, pure	1-≤2.5%
104-76-7	2-ethylhexan-1-ol	1-≤2.5%

4 First-aid measures

- **Description of first aid measures**
 - **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
 - **After skin contact:**
Wash with soap and water for 20 minutes or until chemical is removed. Immediately remove all contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse and discard leather articles saturated with the material.
 - **After eye contact:**
Rinse cautiously with water. Remove contact lenses, if present and easy to do. Get medical attention if eye irritation develops or persists.
 - **After swallowing:** Do not induce vomiting; immediately call for medical help.
 - **Information for doctor:** Treat Systematically
 - **Most important symptoms and effects, both acute and delayed**
 - Headache
 - Unconsciousness
 - Nausea

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May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Harmful if swallowed. May be fatal if swallowed and enters airways. Swallowing a small quantity of this material will result in serious health hazard.

May cause respiratory tract irritation.

blurred vision

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** See section 10 for additional information.

· **Advice for firefighters**

· **Protective equipment:**

Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Do not use a water jet.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Personal protective equipment must be worn. Avoid contact with skin, eyes or clothing.

· **Information about protection against explosions and fires:**

Keep away from ignition sources and high temperature materials.

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- **Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
See section 10 for incompatible materials.
 - **Information about storage in one common storage facility:**
Store at temperatures not exceeding 49 °C/120°F.
 - **Further information about storage conditions:**
Keep receptacle tightly sealed.
Keep from freezing.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Engineering Controls**
Ensure adequate ventilation in the workplace.
eye wash station
safety shower

- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

111-76-2 2-butoxyethanol (50-100%)

PEL	TWA: 240 mg/m ³ , 50 ppm
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Skin

REL	TWA: 24 mg/m ³ , 5 ppm
-----	-----------------------------------

Skin

TLV	TWA: 97 mg/m ³ , 20 ppm
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BEI

· **Ingredients with biological limit values:**

111-76-2 2-butoxyethanol (50-100%)

BEI	200 mg/g creatinine
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Medium: urine

Time: end of shift

Parameter: Butoxyacetic acid with hydrolysis

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Not necessary if room is well-ventilated.

Use suitable respiratory protective device only when aerosol or mist is formed.

- **Protection of hands:**



Chemical resistant protective gloves

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· **Eye protection:**



Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Liquid
· **Color:** Amber colored

· **Odor:** Sweetish

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** -70.4 °C (-95 °F)

· **Boiling point/Boiling range:** 171 °C (340 °F)

· **Flash point:** 65 °C (149 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 240 °C (464 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

· **Lower:** 1.1 Vol %

· **Upper:** 10.6 Vol %

· **Vapor pressure at 20 °C (68 °F):** 1.2 hPa (1 mm Hg)

· **Density at 20 °C (68 °F):** 0.899 g/cm³ (7.502 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

· **Water at 20 °C (68 °F):** 1 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **Dynamic:** Not determined.

· **Kinematic:** Not determined.

· **Solvent content:**

· **Organic solvents:** 98.0 %

· **VOC content:** 98.0 %

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· **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
 - **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
 - **Possibility of hazardous reactions** No dangerous reactions known.
 - **Conditions to avoid** Heat, open flames, sparks.
 - **Incompatible materials:** No further relevant information available.
 - **Hazardous decomposition products:** May include, and are not limited to: oxides of carbon.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

ATE (Acute Toxicity Estimates)

Oral	LD50	487 mg/kg (rat)
Dermal	LD50	415 mg/kg
Inhalative	LC50/4 h	2.29 mg/l (rat)

111-76-2 2-butoxyethanol

Oral	LD50	470 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h	2.2 mg/l (rat)

112-80-1 oleic acid, pure

Oral	LD50	74000 mg/kg (rat)
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104-76-7 2-ethylhexan-1-ol

Oral	LD50	2049 mg/kg (rat)
Dermal	LD50	1970 mg/kg (rabbit)

- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
 - **Inhalation:** May cause respiratory tract irritation.
 - **Ingestion:** May cause gastrointestinal irritation, nausea, vomiting, diarrhea.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

111-76-2	2-butoxyethanol	3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

111-76-2 2-butoxyethanol

EC50 (48 h) >1000 mg/L (daphnia)

LC50 (96 h) (static) 1490 mg/l (Lepomis macrochirus)

112-80-1 oleic acid, pure

LC50 (96 h) 205 mg/l (fish)

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

112-80-1 oleic acid, pure

Bioaccumulation LogPow 7.73 (-) (potential high)

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT**

NA1993

· **IMDG, IATA**

Not Regulated

· **UN proper shipping name**

· **DOT**

COMBUSTIBLE LIQUID, N.O.S

· **IMDG, IATA**

Not Regulated

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· Transport hazard class(es)	
· IMDG, IATA	
· Class	Not Regulated
· Packing group	
· DOT	III
· IMDG, IATA	Not Regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
· Poison inhalation hazard:	Not applicable. No
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
	Not applicable.
· UN "Model Regulation":	
	-

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

111-76-2 | 2-butoxyethanol

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

111-76-2 | 2-butoxyethanol

NL

· **TLV (Threshold Limit Value established by ACGIH)**

111-76-2 | 2-butoxyethanol

A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

2-butoxyethanol
2-ethylhexan-1-ol

· **Hazard statements**

Combustible liquid.
Harmful if swallowed, in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye irritation.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.
Wash thoroughly after handling.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.
Do not eat, drink or smoke when using this product.
Wash contaminated clothing before reuse.
Call a poison center/doctor if you feel unwell.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:** Engineering Department

· **Issue Date** May 26, 2015

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 4: Flammable liquids, Hazard Category 4
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

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